

IN THE CLAIMS

Claim 1 (**currently amended**). Ceramic nanofiltration membrane for use in organic solvents, **comprising consisting essentially** a mesoporous ceramic membrane **the pore surfaces of which are** modified by **treatment chemical bonding thereto of with** a hydrophobing agent **selected from the group consisting of silanes of the formula** $R_1R_2R_3R_4Si$.

Claim 2 (previously presented). Ceramic nanofiltration membrane according to Claim 1, wherein the mesoporous membrane has a pore size between 2 nm and 10 nm.

Claim 3 (**currently amended**). Ceramic nanofiltration membrane according to claim 1, wherein the mesoporous ceramic membrane, **prior to said modification**, consists of a metal oxide.

Claim 4 (**cancelled**).

Claim 5 (**currently amended**). Ceramic nanofiltration membrane according to Claim ~~4~~ **1**, wherein between one and three of the groups R_1 - R_4 **of said silanes, prior to said bonding**, are hydrolyzable groups.

Claim 6 (**currently amended**). Ceramic nanofiltration membrane according to Claim ~~4~~ **1**, wherein between one and three of the groups R_1 - R_4 are nonhydrolyzable groups.

Claim 7 (**currently amended**). Ceramic nanofiltration membrane according to Claim 6, wherein at least one of the nonhydrolyzable **substituents groups** is at last partially fluorinated.

Claim 8 (**currently amended**). Method for production of the ceramic nanofiltration membrane of claim 1, which comprises modifying a ceramic mesoporous membrane by impregnating it with a hydrophobing agent **selected from the group consisting of silanes of the formula**

R₁R₂R₃R₄Si, in the liquid phase and reacting said impregnated hydrophobing agent with said mesoporous ceramic membrane to chemically bond said hydrophobing agent to said mesoporous membrane.

Claim 9 (previously presented). Method according to Claim 8, wherein penetration of the hydrophobing agent is supported by a pressure difference between the front and back side of the membrane.

Claim 10 (**currently amended**). Method for production of the ceramic nanofiltration membrane of claim 1, which comprises modifying a ceramic mesoporous membrane by impregnating it with a hydrophobing agent selected from the group consisting of silanes of the formula R₁R₂R₃R₄Si, in the gas phase and reacting said impregnated hydrophobing agent with said mesoporous ceramic membrane.

Claim 11 (**currently amended**). Method according to claim 8 wherein, after treatment impregnation of with the hydrophobing agent, heat treatment between 100 and 400°C is applied.

Claim 12 (**currently amended**). The ceramic nanofiltration membrane of claim 2, wherein said pore size is between 2 nm and 5 nm.

Claim 13 (previously presented). The ceramic nanofiltration membrane of claim 3, wherein said metal oxide is selected from the group consisting of TiO₂, ZrO₂, Al₂O₃, SiO₂ and mixtures of two or more thereof.

Claim 14 (previously presented). The ceramic nanofiltration membrane of claim 5, wherein one of the groups R₁-R₄ is a hydrolyzable group.

Claim 15 (previously presented). The ceramic nanofiltration membrane of claim 5, wherein said hydrolyzable groups are selected from the group consisting of Cl, -OCH₃ or -O-CH₂-CH₃.

Claim 16 (**currently amended**). The ceramic nanofiltration membrane of claim 14, wherein said hydrolyzable group is ~~or~~ selected from the group consisting of Cl, -OCH₃ or -O-CH₂-CH₃.

Claim 17 (previously presented). The ceramic nanofiltration membrane of claim 6, wherein three of the groups R₁-R₄ are nonhydrolyzable groups.

Claim 18 (previously presented) The ceramic nanofiltration membrane of claim 6, wherein said nonhydrolyzable groups are selected from the group consisting of alkyl groups and phenyl groups.

Claim 19 (previously presented). The ceramic nanofiltration membrane of claim 17, wherein said nonhydrolyzable groups are selected from the group consisting of alkyl groups and phenyl groups.

Claim 20 (previously presented). Method according to claim 10, wherein after **treatment reaction** with the hydrophobing agent, heat treatment between 100 and 400°C is applied.

Claim 21 (previously presented). Method according to claim 20, wherein said heat treatment is between 150 and 300°C.

Claim 22 (previously presented). Method according to claim 11, wherein said heat treatment is between 150 and 300°C.